***COMPLETE IN NOTEBOOK! COPY ALL FIGURES!***

CW26/HW26: Side-Side-Side Triangle Congruence Criteria

**Geometry**

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| 1. Determine if the two triangles are congruent. If so write a congruency statement and identify what postulate is needed to prove congruency. | 2. Determine if the two triangles are congruent. If so write a congruency statement and identify what postulate is needed to prove congruency. |
| 3. Prove the following:  **Given:**  FJ HJ  G is the midpoint of FH  **Prove:** Δ*FGJ* ≅Δ*HGJ* | 4. Prove the following:  **Given:** JL ≅ ML  JK ≅ MK  **Prove:** Δ*KJL* ≅Δ*KML* |

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| 5. Δ*DFG* has vertices *D*(−2, 4), *F*(4, 4), and *G*(−2, 2). Δ*LMN* has vertices *L*(−3, −3), *M*(−3, 3), and *N*(−l, −3).   a) Graph the triangles in the same coordinate plane  b) List the corresponding sides and use evidence to justify that the sides are congruent. Hint: find the measure of all the sides!  c) Brianna says that the two triangles are congruent. Do you agree or disagree with Brianna? Justify your answer using mathematical evidence. |
| 6. Use the given coordinates to determine if Δ*ABC* ≅Δ*DEF.* Hint: find the measure of all the sides!  *A*(1, 2), *B*(4, –3), *C*(2, 5), *D*(4, 7), *E*(7, 2), *F*(5, 10)  a) Graph the triangles in the same coordinate plane  b) List the corresponding sides and use evidence to justify that the sides are congruent. Hint: find the measure of all the sides!  c) William says that the two triangles are congruent. Do you agree or disagree with William? Justify your answer using mathematical evidence. |

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| 5. Δ*DFG* has vertices *D*(−2, 4), *F*(4, 4), and *G*(−2, 2). Δ*LMN* has vertices *L*(−3, −3), *M*(−3, 3), and *N*(−l, −3).   a) Graph the triangles in the same coordinate plane  b) List the corresponding sides and use evidence to justify that the sides are congruent. Hint: find the measure of all the sides!  c) Brianna says that the two triangles are congruent. Do you agree or disagree with Brianna? Justify your answer using mathematical evidence. |
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